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Addressing the Environment Agenda: India – US Strategic Partnership Towards Green Co-operation

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Abstract

From 'estranged democracies', to 'strategic partnership', Indo – US relations has come a long way to begin a new era of green cooperation in bilateral relations. Today both the countries have shown keen interest in exchange of ideas and issues based on pragmatic assessment of interests to address the agenda of environment. This strategic partnership has culminated into Green Accord (2009), broad based and multi - sectoral in scope with particular significance accorded to green partnership which also reaffirmed both countries commitment towards climate change and building a clean –green economy for a sustainable future. The main focus of this article is to address (a) the factors contributing to this strategic partnership (b) bilateral cooperation for green partnership in the area of clean energy (c) both countries commitment to climate change to address the agenda of environmental security and looking at the increasing risk of disasters (d) and the future ahead to bring about substantial change.

Keywords: *Indo – US Strategic Partnership, Clean Energy, Climate Change, Disasters Environmental Security*

Introduction

The concern for green cooperation has gradually been interwoven in the concern of the international society over environmental crisis and the concern for climate change. (Stoett, 1994) This is an ongoing and long term process which requires timely response from such threats by all the countries concerned. In this context the major areas of green cooperation between United States and India can be built around two significant issues i.e. clean energy security and climate change that will go in a long way to develop the strategic cooperation between both countries. The focus of the paper therefore is to understand the broad parameters and factors contributing to the development of strategic partnership between both the countries that was carried forward to shape their response towards clean energy partnership when both the countries addressed their commitment to clean energy security scenario. This significantly brings into focus the bilateral green cooperation for clean energy security. Further, both countries commitment to address the agenda of climate change and challenges such as disasters for environmental security will be addressed to understand the respective country's position in global perspective and the future ahead.

Moving towards Strategic Partnership

Engaging India and America into strategic partnership requires pragmatic assessment of interest on both sides to make this engagement purposeful. The question arises what kind of engagement lies ahead (Bajpai,2008) which has brought both the largest democracies of the world often at odds to see through their estranged relationship (Dennis Kux,1993) to a more engaged outlook by the leadership in

both the countries. Strobe Talbott in his most fascinating book "Engaging India" argues that the role played by 'engaged leadership' in both United States and India has resulted in thawing relations between the two countries, particularly the Clinton administration at the very outset regarded India as a 'rising power' that the United States must 'constructively engage' (Strobe Talbot, 2004). Coming out of this fluidity to a more concrete engagement was also based on the recognition about India's new found status as a 'nuclear power' and also the realization that India's nuclear capability could not be reversed led to the change in perception on the American side (C. Raja Mohan, 2003).

The agenda was set in the new millennium to strengthen bilateral relations cemented by President Clinton's visit to India in March, 2000, the first in twenty two years by any US President in recent history. Speaking on South Asian Affairs at the Institute for Peace on 9th March, 2000, the then Assistant Secretary of State for South Asian Affairs, Karl Inderfurth commented that India was viewed as a 'key player' in global affairs in the overall Asian regional peace and security and as such US-India relations would not be hostage to US relations with any other country (Text Document: US Department of State, 2000).

This positive atmosphere was further consolidated during the Bush Administration when India was accorded the status of 'strategic partner' and finally culminating into Obama – Manmohan Accord in 2009 at the bilateral level. This strategic partnership is broad based and multi-sectoral covering various issues such as economy, trade, investment, space, nuclear, missile technology transfer and particularly emphasizing 'green partnership' to strengthen bilateral relations. The Green Partnership (2009) between United States and India reaffirmed both countries commitment for environmental security in the region and also at the global level by combating climate change, ensuring energy security and building a clean green economy for a sustainable future. This commitment was further reinforced in the current years with the visit of Prime Minister N. Modi to US reciprocated by President Obama's visit to India.

Indo-US Relations has come a long ways since the days of cold war politics and has led to a rethinking of the agenda of cooperation in bilateral relations (Gary Bertsch, 1999). Looking back to the early 1990's few would have predicted the change that has come in the relations between the two countries. The time reflecting the early 1990's as in the past, offered no proper agenda for future cooperation between the two countries as it was locked in cold war politics. Till the 1990's US Foreign policy was always considered in the context of off-shore balancing in historical perspective (Rudolph and Rudolph 2006).

The post September - Eleven event altered the balance, that finally changed the perception and India was 'bandwagoned' with the world's sole hegemonic power (Andrew Hurrell. 2006). But this bandwagoning with Washington has its own limitations. As Rajgopalan and Sahni note that 'the clearest limitation is that India needs the US much more than the US needs India' (Rajgopalan and Sahni: 2008:15). India was confronted with the reality that US remained the sole hegemonic power with which it shared a history of acrimonious relation. The end of Soviet era also meant an ideological change of guard for India. And with end of cold war rivalry non-alignment as a foreign policy tool was becoming less useful contextually. The region of South Asia, which reflected a failed democracy in Pakistan and a volatile state in Afghanistan, the only largest democracy that offered stable relationship was India (Chenoy, 2007). .

With Barak Obama coming to power in 2008, this strategic alliance took the next step forward bringing with it more challenges and opportunities for India (K.P. Fabian: 2009; Chintaman Mahapatra: 2009; Shalendra. D. Sharma: 2009) America and the Obama Administration at the very outset indicated the fact that they are going to apply a wider approach to engage allies and partners (Clarence Lusane: 2008) and India was emerging as one of the most reliable strategic partner in South Asian region.

Prime Minister Manmohan Singh's visit to US in November, 2009 to impart further momentum to bilateral cooperation. This visit also forged the Green Partnership between both the countries as both reaffirmed their commitments for environmental security in the region as well as at the global level by ensuring mutual energy security and combating climate change and working towards a clean – green economy for a sustainable future

Towards green partnership for clean energy

The leaders termed the Green Partnership between two democracies as "indispensible" (The White House Fact Sheet: 2010). The pursuit of energy security remains high on the political agenda of both the countries. In the current scenario, US is the largest consumer of energy in the world, accounting for over 22% of world primary energy consumptions. India is currently ranked fifth accounting for nearly 3.5% of the world's energy consumption. According to the projections of the International Energy Agency (IEA) India's primary energy demand (hydrocarbons) will more than double from 537 million tones of oil equivalent in 2005 to 1299 million tones in 2030 with an average annual growth rate of 6.3%. This will make India the third largest energy consumer in the world by 2030 next to China and the US (Report of TERI 2010).

The Planning Commission of India's Integrated Energy Policy document asserts that India to eradicate poverty and meet human development needs and to sustain an economic growth of 8% over the next 25 years would require primary energy supplies by nearly 4 times and an increase in power generation from the current level of 60,000 mega watts to about 8,00,000 mega watts by 2030 (B. Singh 2009). But the fact remains that India's position is much more critical because it does not have sufficient indigenous resources of hydrocarbons particularly oil, the traditional fossil fuel for energy resource. India has only 0.5% of the world's total oil reserves and depends to the extent of 70% on imported oil. This dependency is expected to increase to 90% by 2025 (IEA: 2007-2008) since India's oil reserves of around 725 million tones (Ministry of Petroleum and Natural Gas, India: 2007-2008) can only sustain current levels of economic production for the next 22-25 years. As a result India's dependence on imported oil will continue and it is estimated that by 2030-2031, India will have to import 66% coal, 90% oil and 60% natural gas (India Energy Book: 2008). Though the position is slightly better in the gas sector but with the growing demand the gap between supply and demand is widening.

To address this problem India has embarked on a medium to long term strategic shift from non renewable to renewable sources of energy or clean energy to meet global commitments. The demand for India's energy sector is too high yet policy makers have been exploiting substantial potential for renewable energy even its minuscule compared to traditional energy source. In fact India was one of the first countries to explore the possibilities of non-conventional energy as far as back as 1973 and started its renewable energy programme (A. Parthasarthi:2010). Currently India's renewable energy sector is mainly driven by wind energy, a sector in which India ranks fifth in world production. At present India has an installed capacity of 10,464 mega watt (2009). However, the focus is on developing its solar energy potentials to harness the long spell of sun rays available due to its geo-climatic position and bio fuel production.

This position was further consolidated with a major government initiative to promote ecological sustainable growth. To address India's energy security challenge, the National Action Plan for climate change (NAPCC) was adopted in 2008 and a National Solar Mission was established known as the Jawaharlal Nehru National Solar Mission (2010), with the goal of increasing solar energy production by 1,000 mega watt every year reaching a capacity of 20,000 mega watts by 2022 and 1,00,000 mega watt by 2030 (S.R. Dadwal:2010). This ground task to fulfill requires that India can make inroads into green technology if it has financial

and technological support from rich countries. But reservation have been expressed that within such a short time frame, building about 20,000 mega watt of power plants which translates into at least over 10,000 solar power plants between 2009 – 2020 is a target impossible to achieve.

Looking from this perspective, the Indo-US cooperation for clean energy is to forward the agenda of green partnership (According to the Report released by the National Resource Defense Council 2011, USA). A number of agreements were signed between the two countries in November, 2009 particularly for collaboration on Solar Energy and Wind Energy, Research and Development and in bio fuels. On the Solar Energy Sector collaboration was forged between US National Renewable Energy Lab (NREL) and India's Solar Energy Centre to develop a comprehensive nationwide map of solar energy potential. The US and India reaffirmed their commitment to increase cooperation in conventional natural gas including coal bed methane, natural gas hydrates and shale gas. In future it may become a game changer for India in clean energy sector. (S.R. Dadwal, 2012). Moreover the Indo-US governments also committed for a public-private contribution for clean Energy Research and Deployment Initiative that included the setting up of Joint Research Centre operating in both countries to foster innovation and joint efforts to accelerate deployment of clean energy technologies.

Energy cooperation which is central element of US-India strategic partnership on green issues, has forward a feasibility pilot project the Partnership to Advance Clean Energy (2009) – to bring in joint venture in clean energy research and deployment. For clean energy research the US Department of Energy (DOE) and India's Planning Commission has established a 125 million public-private a Joint Clean Energy Research and Development Centre (JCERDC) for scientific and technological solutions in areas of building efficiency, solar energy and advanced bio fuels a sharp increase in funding for climate and clean technological collaboration and investment (The NRDC Report, 2011). The US government has announced a $100 million dollar contribution of the overseas Private Overseas Investment Cooperation (OPIC) to the Global Environment Facility and $300 million dollar South Asia Clean Energy Fund, 80% - 90% of which will be directed towards investments in India over a period of five years, including projects on solar photovoltaic projects, battery innovation and green buildings (PACE A Progress Report, 2012).

To meet the challenge of oil imports an alternative renewable technology has been applied for bio fuel production. In December, 2009 the Government of India announced a "National Policy on Bio Fuels" with a proposed target of 20% blending for bio diesel and bio ethanol by 2017 (S.R. Dadwal, 2010; Raju, Shinoj and Joshi, 2009). India has launched a National Bio-diesel Mission (NBM) which identified jatropha curcas as the most suitable form of tree-borne oil seed for bio-diesel production. During the 12th Five Year Plan, the target is to build upon the previous target of 11.2 to 13.4 million hectares of land under atrophy cultivation that could potentially yield 15 million tonnes of oil per year. But the issue is related to land acquisition policy and food security so the government has tried to mitigate the problem by acquiring community, government owned and forest wasteland so that food production is not affected that may harm the prospects of food security issues. But this prospect is also constrained by the federal structure and center state relations.

Since energy is vital for development and this means India has to move to a higher growth trajectory which again is dependable on availability of energy. The present energy scenario in India is not satisfactory with its dependence on imported oil (70% - 80%) this naturally raises issues about energy security. Moreover renewable energy production is quite low compared to conventional energy production. At the same time renewable energy technologies are costly to acquire particularly in the context of international market. Given the global economic

slowdown several private investors in renewable energy sector are holding back on projects. This requires multi sectoral incentives based policies to generate required responses (P. Garg.2012). Indo-US partnership for clean energy has opened new avenues for in this sector with research and deployment of technology and technical assistance forthcoming but this is a long process based on pragmatic assessment of interest on both sides to address the issue of energy security.

Towards Green Cooperation for climate change

India and US share a common concern for climate change. This was more evident with the present administration in both the countries for green partnership which made clear that this new "green partnership" will help to produce more viable cooperation to combat climate change at the global level. But this cooperation is more embedded in the North-South differences in development perceptions and concern for national interest than for global common concern. In particular, it is noted that this perception is based on the stand that the largest part of green house gases emissions (GHGs) originates in the developed countries and therefore those countries have the largest responsibilities for combating those pollution.

From the days of oil crisis (1979) till the Byrd-Hagel Resolution (25th July, 1997) America policy towards climate change has been one of greatest concern, voluntary participation yet "non-commitment" in the reduction of green house gasses (GHGs) emission. The Resolution stated that Senate would not ratify any treaty (Kyoto Protocol)on two counts – firstly, it would impose binding limits on the industrialized countries and not on developing countries within the same compliance period and secondly, it would result in "serious economic harm" to the economy of the United States (John Kirton, 2009). Particularly the outcome at the Copenhagen Summit (2009) on UNFCCC climate change, clearly stated as T. Jayaram points out that the United States remains firmly committed to see its hegemonic interests are not seriously compromised by the outcome of the climate change negotiations (T. Jayaram, 2009).thirdly, with the growing economies of major developing countries such as China and India and their increased GHGs emissions the US and the industrialized countries do insist a bigger responsibility for these developing countries / economies to be part of the emission reduction regime. For this it requires countries to accept their share of responsibility to meet the global challenge (Bernhard, May 2010).

The US position became a bit more clear from 2008 onwards on its climate policy stand as it declared that the days of 'delay and denial' were over and the US would 'engage vigorously' to lead climate change talks and work to reduce emissions sharply by 2020. The US has also set strong annual targets to reduce annual targets to 1990 level by 2020 and reduce them by additional 80% by 2050. The US has also continued its commitment to enact effective domestic climate change legislations to curb GHGs emissions (Margaret Rosso Grossman, 2010). Thus from an initial resistance to Kyoto Protocol US is evolving towards leadership in international efforts to mitigate climate change.

India has been more reasonable and consistent with its stand on climate change policy which reflects the developing countries arguments that is the prime responsibility of the industrialized countries to reduce their carbon emissions and transfer technologies to the developing countries to help lower their emission targets. Energy is critical for economic development and poverty reduction. It will also be required to fulfill the targets under the Millennium Development Goals by 2015. For India and other developing countries this means that the development to meet the basic needs and aspirations of a vast and growing population will lead to increased GHF emissions in the near future (Kumar and Kumar, 2008).

India on its part is quite aware of the global concerns for climate change and has renewed its assistance towards working for a clean environment and reduction of GHGs emissions. India was a late comer to the industrialization

process and as such has contributed very little to the accumulation of GHGs that caused global warming but India is determined to be part of the solution. At present India's and China contribute 5% and 14% GHG total emission globally (PM Manmohan Singh's Statement: The Guardian, 24th November, 2009). India's new commitment of 'vigorous action' must be supplemented by the financial and technological assistance for generating clean energy and technological support from the advanced countries to help reduce carbon emissions. (NRDC Issue Paper, 2011).

Climate change is also emerging as a key security challenge in the twenty first century. It has added a new dimension to environmental (in) security in Asia. (P.J. Smith. 2007). The rise in conflicts, terrorism, increase in frequency of disasters and climate change related hazards, public health epidemics, external migration and water disputes among neighbours have emerged as some of the major security concerns of Asia including South Asia. (V.R. Ragahavan. 2007). The Fifth Assessment Report of IPCC (2014) on South Asia and other regional reports have confirmed that in future climate change is expected to increase the frequency and intensity of current climate related hazards and the emergence of new hazard turning into disaster. Global mean sea level will continue to rise during the 21st century under all emissions scenarios be it low and high, the rate of sea level rise will very likely exceed that have been observed during the past three decades (IPCC 2007). The 2 degree rise in temperature as estimated can have disastrous consequences for South Asia's coastal settlements, as well as for coastal economies, cultures and ecosystems. Low lying, densely populated coastal areas in South Asia, including in India and Bangladesh, will be at increased risk of storm surges. (South Asia Disasters Report 2011) Climate change and increasing risk of disasters can bring forward better responses both from America and India to address this global challenge not only at the international level but also at the national level. Cooperation that will focus on implementing aggressive emissions reductions and emphasize the need to align the interests of developing countries, whether in economic development, energy security, or public health, with steps that will help mitigate climate change and disaster risks.(Richard M. Rossow and C. Raja Mohan.2015).

Keeping these imperatives in mind India has started acting to meet the climate change challenges. A number of developments have taken place on the policy front; such as the Energy Conservation Act, 2001, and the National Environment Policy of India, 2006 which addressed issues of mitigation and adaption including measures to shift to renewable source of energy within the broad framework of clean energy development mechanism (Kumar and Kumar, 2008). To enhance the ecological sustainability of India's development scenario and to address climate change, India has also launched the National Action Plan on Climate Change 2008 (NAPCC, June 30, 2008) and more recently India's Perspective Document on Climate Change 2013 outlining existing and future policies and programs addressing climate mitigation and adaptation. These measures are indications that India is keen to play its part in the global climate change scenario. Similar changes in policy perception is being noticed on American side where it is argued that it is in American national interest to actively take part in climate change negotiations and mitigation strategies even at the cost of free rides of nations on their part considering the most rational action on climate change and overall environmental security (Freeman and Guzman. 2009).

The Future Ahead

Both countries recognition of causes and consequences of climate change have resulted in taking respective actions on the domestic front and also a realization to act on the global platform to cooperate. It is also recognition of the fact that the developed and developing countries cannot share equal responsibility for dealing with the problem. There is an overriding concern in the developing countries that participating in the

global order will seriously hamper their chances of economic development. Till now the developing countries have continued to hold the position of 'common but differentiated responsibility' and 'respective capabilities' under the UNFCCC agreement in relation to the developed countries. Similarly for the developed world keeping CO2 emissions low requires expensive technology and a massive commitment of resources and technology transfer to the developing countries. With the emergence of China, India and Brazil as significant players in the energy and climate debate, any effective initiative in the post Kyoto deliberation (P. Christoff, 2006) will require to take into consideration the concerns of both the developing and developed countries. Looking from a different perspective if the emerging powers want to be seen as 'responsible powers' then shift in their policy stance is unavoidable. (Hurrell and Sengupta, 2012). This shift is recognition of the fact that risks and vulnerabilities associated with climate change has global dimensions. India and United States can build upon this partnership in the long term to address new dimensions of cooperation.

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